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Application No.: 10/697,208

Filed: October 30, 2003

TC Art Unit: 2615

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REMARKS

The foregoing amendment is filed in response to the official action dated October 17, 2007. Reconsideration is respectfully requested.

The status of the claims is as follows.

Claims 1-45 are currently pending.

Claims 1-45 stand rejected.

Claims 1, 10, 22, 31, 36, and 41 have been amended.

The Examiner has rejected claims 1-3, 8-9, 18-19, 22-24, 29-30, 36, and 41 under 35 U.S.C. 102(b) as being anticipated by Pompei (USP Pub. 2001/0007591). The Applicant respectfully submits, however, that base claims 1, 22, 36, and 41, as amended, and the claims depending therefrom, recite non-obvious subject matter that distinguishes over the art of record, and therefore the rejections of claims 1-3, 8-9, 18-19, 22-24, 29-30, 36, and 41 under 35 U.S.C. 102 should be withdrawn.

For example, amended base claim 1 recites a system that includes an electronic entertainment system and a directed acoustic sound system. The electronic entertainment system includes at least one source of audio signals, in which the audio signals correspond to at least one audio channel. The directed acoustic sound system includes a modulated signal generator for

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generating an ultrasonic carrier signal modulated with at least one of the audio signals, a driver amplifier for amplifying the modulated ultrasonic carrier signal, and at least one directional loudspeaker, which includes at least one acoustic transducer for receiving the modulated ultrasonic carrier signal amplified by the driver amplifier, and for projecting a sound beam representing the modulated ultrasonic carrier signal through a propagation medium along a pre-selected path to reproduce the audio signal along at least a portion of the path. As recited in amended claim 10, the electronic entertainment system can be a television, a radio, an audio tape player, a phonograph, a compact disk player, a digital video disk player, a laser disk player, a video game, a desktop computer, a laptop computer, or an MP3 system. The directional loudspeaker included in the directed acoustic sound system can direct the sound beam along the pre-selected path toward a user of the electronic entertainment system, thereby preventing individuals other than the electronic entertainment system user from hearing sound produced by the electronic entertainment system.

Moreover, amended base claim 36 recites a system that includes a telephone system and a directed acoustic sound system. The telephone system includes a receiver for receiving information

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representative of at least one audio signal. The directed acoustic sound system includes a modulated signal generator for generating an ultrasonic carrier signal modulated with the audio signal, a driver amplifier for amplifying the modulated ultrasonic carrier signal, and at least one directional loudspeaker. As recited in amended claim 36, the directional loudspeaker includes at least one acoustic transducer for receiving the modulated ultrasonic carrier signal amplified by the driver amplifier, and for projecting a sound beam representing the modulated ultrasonic carrier signal through a propagation medium along a pre-selected path to reproduce the audio signal along at least a portion of the path. As a result, individuals other than the user of the telephone system are prevented from hearing sound produced by the telephone system.

Because the Pompei reference does not disclose a system that includes an electronic entertainment system (or a telephone system) and a directed acoustic sound system, in which the electronic entertainment system includes at least one source of audio signals (or the telephone system includes a receiver for receiving information representative of at least one audio signal), and the directed acoustic sound system includes a modulated signal generator for generating an ultrasonic carrier

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signal modulated with the audio signal, a driver amplifier for amplifying the modulated ultrasonic carrier signal, and at least one directional loudspeaker including at least one acoustic transducer for receiving the modulated ultrasonic carrier signal amplified by the driver amplifier and for projecting a sound beam representing the modulated ultrasonic carrier signal through a propagation medium along a pre-selected path to reproduce the audio signal along at least a portion of the path, as recited in amended base claim 1 (or amended base claim 36), the Applicant respectfully submits that the Pompei reference does not anticipate amended claim 1 (or amended claim 36) and the claims depending therefrom.

For at least the reasons discussed above with reference to amended base claim 1 (and amended base claim 36), the Applicant further submits that the Pompei reference does not anticipate amended base claim 22 (and amended base claim 41) and the claims depending therefrom. Accordingly, it is respectfully submitted that the rejections of claims 1-3, 8-9, 18-19, 22-24, 29-30, 36, and 41 under 35 U.S.C. 102 should be withdrawn.

The Examiner has rejected claims 5-7, 10, 20-21, 26-28, and 31 under 35 U.S.C. 103(a) as being unpatentable over Pompei in view of Milsap (USP Pub. 2003/0185404). The Applicant

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respectfully submits, however, that the Milsap reference does not cure the deficiencies of the Pompei reference, and therefore the combined teachings of the Pompei and Milsap references would not suggest to one of ordinary skill in this art at the time of the invention the subject matter of claims 5-7, 10, 20-21, 26-28, and 31.

Specifically, with reference to amended claims 10 and 31, the Applicant respectfully traverses the taking of Official Notice with regard to the electronic entertainment system being a television, a radio, an audio tape player, a phonograph, a compact disk player, a digital video disk player, a laser disk player, a video game, a desktop computer, a laptop computer, or an MP3 system. The Applicant respectfully submits that a system and method including such an electronic entertainment system and a directed acoustic sound system, as recited in amended base claims 1 and 22, and the benefits derived therefrom, are neither taught nor suggested in the art of record. As discussed above, the claimed system and method is operative to prevent individuals other than the user of the electronic entertainment system from hearing sound produced by the electronic entertainment system, thereby making the claimed system and method advantageous for use

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in the home, in the workplace, or in any other environment where audio leakage is undesirable.

In addition, with reference to dependent claim 20, the Applicant respectfully traverses the taking of Official Notice with regard to providing a swing-arm assembly for mounting the directional loudspeaker to a ceiling, a floor, or a wall. Such a swing-arm assembly permits the user of the claimed system to take full advantage of the directional loudspeaker, allowing him or her to aim the audio sound beams produced by the directional loudspeaker directly at the intended listener. The Applicant respectfully submits that the art of record neither teaches nor suggests the system of claim 20 and the advantages derived therefrom. Accordingly, it is respectfully submitted that the rejections of claims 5, 7, 10, 20-21, 26-28, and 31 under 35 U.S.C. 103 should be withdrawn.

The Examiner has rejected claims 11-13, 32-34, 37-39, and 42-44 under 35 U.S.C. 103(a) as being unpatentable over Pompei in view of Schmmoll III (USP 4,308,422). The Applicant respectfully submits, however, that like the Milsap reference, the Schmmoll reference does not cure the deficiencies of the Pompei reference, and therefore the combined teachings of the Pompei and Schmmoll references would not suggest to one of ordinary skill in this art

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at the time of the invention the subject matter of claims 11-13, 32-34, 37-39, and 42-44. Accordingly, it is respectfully submitted that the rejections of claims 11-13, 32-34, 37-39, and 42-44 under 35 U.S.C. 103 should be withdrawn.

The Examiner has rejected claims 14, 35, 40, and 45 under 35 U.S.C. 103(a) as being unpatentable over Pompei in view of Nourse et al. (USP Pub. 2003/0063755). The Applicant respectfully submits, however, that like the Milsap and Schmmoll references, the Nourse reference does not cure the deficiencies of the Pompei reference, and therefore the combined teachings of the Pompei and Nourse references would not suggest to one of ordinary skill in this art at the time of the invention the subject matter of claims 14, 35, 40, and 45. Accordingly, it is respectfully submitted that the rejections of claims 14, 35, 40, and 45 under 35 U.S.C. 103 should be withdrawn.

The Examiner has rejected claims 16-17 under 35 U.S.C. 103(a) as being unpatentable over Pompei in view of Shinohara (USP Pub. 2003/0005461). The Applicant respectfully submits, however, that like the Milsap, Schmmoll, and Nourse references, the Shinohara reference does not cure the deficiencies of the Pompei reference, and therefore the combined teachings of the Pompei and Shinohara references would not suggest to one of ordinary skill in this art

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at the time of the invention the subject matter of claims 16-17. Accordingly, it is respectfully submitted that the rejections of claims 16-17 under 35 U.S.C. 103 should be withdrawn.

The Examiner has rejected claim 15 under 35 U.S.C. 103(a) as being unpatentable over Pompei in view of Kurtz (USP 6,754,452). The Applicant respectfully submits, however, that like the Milsap, Schmmoll, Nourse, and Shinohara references, the Kurtz reference does not cure the deficiencies of the Pompei reference, and therefore the combined teachings of the Pompei and Kurtz references would not suggest to one of ordinary skill in this art at the time of the invention the subject matter of claim 15. Accordingly, it is respectfully submitted that the rejection of claim 15 under 35 U.S.C. 103 should be withdrawn.

The Examiner has rejected claims 4 and 25 under 35 U.S.C. 103(a) as being unpatentable over Pompei in view of Official Notice. The Applicant respectfully traverses, however, the taking of Official Notice with regard to the audio signals corresponding to a plurality of audio channels, the plurality of audio channels being selected from the group consisting of a first audio channel corresponding to a first location in front of a user of the system, a second audio channel corresponding to a second location in back of the system user, a third audio channel corresponding to

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a third location to the left of the system user, and a fourth audio channel corresponding to a fourth location to the right of the system user, as recited in claims 4 and 25. The claimed system and method permits the user to take full advantage of the directional loudspeaker, allowing him or her to perceive sounds from the front, the back, the left, and the right to achieve a true home theater experience. The Applicant respectfully submits that the art of record neither teaches nor suggests the system and method of claims 4 and 25 and the advantages derived therefrom. Accordingly, it is respectfully submitted that the rejections of claims 4 and 25 under 35 U.S.C. 103 should be withdrawn.

In view of the foregoing, it is respectfully submitted that the present application is in a condition for allowance. Early and favorable action is respectfully requested.

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The Examiner is encouraged to telephone the undersigned Attorney to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

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